

NOTES ON NEW AND NOTEWORTHY PLANTS. CXXVII

Harold N. Moldenke

DIOSTEA SCOPARIA var. *SUBULATA* Mold.

Haec varietas a forma speciei dentibus calicinis longiter subulatis plerumque tortis recedit.

This variety differs from the typical form of the species in having the calyx-teeth definitely and conspicuously long-subulate, often twisted together in age.

The type of the variety was collected by Juan Semper (no. 631) in meadows at Pampa de Tabolango, Las Heras, Mendoza, Argentina, at 2000 meters altitude, on April 19, 1945, and is deposited in the Britton Herbarium at the New York Botanical Garden. The collector describes the plant as a shrub, 1 m. tall, with lilac-colored flowers.

ERIOCAULON PELLUCIDUM f. *PUMILUM* (Raf.) Mold., stat. nov.

Eriocaulon pumilum Raf., Atl. Journ., imp. 1, 121. 1832.

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ADDITIONAL NOTES ON THE GENUS *DIOSTEA*. I

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Since the publication of my monograph of this genus in 1960 much additional material has come to my attention. This is summarized in the present paper. The herbarium acronyms employed, as in all others in my long series of papers in this journal for the past 46 years, are fully explained in my Fifth Summary (1971), pages 795--801.

DIOSTEA Miers

Additional & emended bibliography: Steud., Nom. Bot. Phan., ed. 2, 2: 750. 1841; D. Dietr., Syn. Pl. 3: 601. 1843; Walp., Nov. Act. Caes. Leopold.-Carol Cur. 19, Suppl. 1: 379. 1843; Schau. in A. DC., Prodr. 11: 544--546, 555, 556, 573, & 614. 1847; C. Gay, Hist. Fis. Chile 1: 20--22 & 30--31. 1849; Buek, Gen. Spec. Syn. Candoll. 3: 104, 266, & 494--496. 1858; Bocq., Adansonia, ser. 1, 3: [Rev. Verbenac.] 203 & 244. 1863; F. Phil., Cat. Pl. Vasc. Chil. 221. 1881; Ball, Notes Nat. S. Am. 202. 1887; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 264, 549, 768, & 777 (1893) and imp. 1, 2: 95 & 96. 1894; Briq. in Engl. & Prantl, Nat. Pflanzenfam., ed. 1, 4 (3a): 147. 1894; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 2: 1178 & 1179. 1895; Briq. in Chod. & Wilczek, Bull. Herb. Boiss., ser. 2, 2: 543 & 544. 1902; Reiche & Phil., Fl. Chil. 5: 272, 282--283, 297--299, & 303. 1910; Sanzin, Anal. Soc. Cient. Argent. 88: 98, 100, 103, 104, 116--118, 122, 125, & 133, fig. 6. 1919; H. C. Comber, Gard. Chron., ser. 3, 92: 373. 1932; H. F. Comber, Gard. Chron., ser. 3, 92: 413. 1932; Makins, Ident. Trees Shrubs 74 & 259, fig. 62 H. 1936; H. S. Marsh., Kew Bull. Misc. Inf. 1936: 94. 1936; Mold., Geogr. Distrib. Avicen. [1], 28, 29, & 39. 1939; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 2, 1: 264, 549, 768, & 777 (1946)

and imp. 2, 2: 95, 96, 1178, & 1179. 1946; Mold., Alph. List Inv. Names Suppl. 1: 9 & 26. 1947; H. N. & A. L. Mold., Pl. Life 2: 31, 43, & 60. 1948; Erdtman, Pollen Morph. Pl. Tax., ed. 1, 448. 1952; Angely, Cat. Estat. Gen. Bot. Fan. 17: 4. 1956; Darlington & Wylie, Chromos. Atl., imp. 1, 322, 323, & 506. 1956; Anon., U. S. Dept. Agr. Bot. Subj. Ind. 15: 14354. 1958; Muñoz Pizarro, Sin. Fl. Chil. 199. 1959; Encke, Pareys Blumengärtn., ed. 2, 443. 1960; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 3, 1: 264, 768, & 777 (1960) and imp. 3, 2: 95, 96, 1178, & 1179. 1960; Muñoz Pizarro, Espec. Pl. Descr. Philip. 110. 1960; Potzta! in Encke, Pareys Blumengärtn., ed. 2, 2: 439. 1960; Darlington & Wylie, Chromos. Atl., imp. 2, 322, 323, & 506. 1961; Mold., Biol. Abstr. 36: 719. 1961; Runner, Rep. Groff Coll. 361. 1961; Hocking, Excerpt. Bot. A.4: 224. 1962; Dalla Torre & Harms, Gen. Siphonog., imp. 2, 430. 1963; Troncoso in Bøcher, Hjerting, & Rahn, Dansk. Bot. Arkiv 22: 105 & 109--110. 1963; Hansen, Excerpt. Bot. A.7: 139. 1964; Mold., Résumé Suppl. 10: 5 (1964) and 11: 5. 1964; F. A. Barkley, List Ord. Fam. Anthoph. 75 & 160. 1965; Mold., Phytologia 12: 6, 20, 27, & 36. 1965; Airy Shaw in Willis, Dict. Flow. Pl., ed. 7, 360. 1966; Erdtman, Pollen Morph. Pl. Tax., ed. 2, imp. 1, 448. 1966; Mold., Phytologia 14: 402. 1967; Mold., Résumé Suppl. 15: 21. 1967; Anon., Torr. Bot. Club Ind. Am. Bot. Lit. 3: 309. 1969; Bolkh., Grif, Matvej., & Zakhar., Chromos. Numb. Flow. Pl., imp. 1, 715 & 716. 1969; Anon., Biol. Abstr. 51 (16): B.A.S.I.C. S.63. 1970; Mold., Biol. Abstr. 51: 9025. 1970; Rouleau, Guide Ind. Kew. 61 & 352. 1970; Erdtman, Pollen Morph. Pl. Tax., ed. 2, imp. 2, 448. 1971; Heusser, Pollen Spores Chile 62 & 81, pl. 59-672. 1971; Mold., Fifth Summ. 1: 5, 10, 191, 195, 362, 395, 428, 429, 431, 433, 476, & 477 (1971) and 2: 532, 549--551, 557, 565, 613, 663, 678, 694, 696, 709, 754, 774, & 876. 1971; Thanikaimoni, Inst. Franç. Pond. Trav. Sect. Scient. Techn. 12: 80. 1972; Airy Shaw in Willis, Dict. Flow. Pl., ed. 8, 369. 1973; Hegnauer, Chemotax. Pfl. 6 [Chem. Reihe 21]: 675. 1973; Gibbs, Chemotax. Flow. Pl. 3: 1752 & 1754. 1974; Bolkh., Grif, Matvej., & Zakhar., Chromos. Numb. Flow. Pl., imp. 2, 715 & 716. 1974; Mold., Phytologia 28: 109, 453, & 508. 1974; Troncoso, Darwiniana 18: 296, 301, 302, 306, 310, 313, 352--355, 409, 411, & 412, fig. 15 & 353. 1974; Mold., Phytologia 30: 181 & 507. 1975; L. H. & E. Z. Bailey, Hortus Third 1149. 1976; A. R. Mold. in Thrower & Bradbury, Chile-Calif. Medit. Scrub Atl. 211. 1977; Markgraf & D'Antoni, Pollen Fl. Argent. 20, 32, 98, 114, 122, & 207, pl. 42-358 & 42-3-9. 1978.

Gibbs (1974) reports tannins and leucoanthocyanin not present in this genus. Darlington & Wylie (1956) give the chromosome number as $x = 5$.

The *Zöllner* 5533, distributed as *Diostea*, actually is *Junellia pseudo-junceae* (C. Gay) Mold.

DIOSTEA CINERASCENS (Schau.) Mold.

Additional synonymy: *Citharexylum? alpinum* Poepp. ex Walp., Repert. Bot. Syst. 4: 16, in syn. 1845. *Lippia cinerascens* F. Phil., Cat. Pl. Vasc. Chil. 219. 1881. *Verbena cinerascens* Gill. &

Hook., in herb.

Additional & emended bibliography: C. Gay, Hist. Fis. Chile Bot. 5: 21. 1849; Buek, Gen. Spec. Syn. Candoll. 3: 104 & 494. 1858; F. Phil., Cat. Pl. Vasc. Chil. 219. 1881; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 549 (1893) and imp. 1, 2: 1178. 1895; Reiche & Phil., Fl. Chil. 5: 282--283. 1910; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 2, 1: 549 (1946) and imp. 2, 2: 1178. 1946; Acevedo de Vargas, Bol. Mus. Nac. Hist. Nat. Chile 25: 41 & 70. 1951; Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 3, 1: 549 (1960) and imp. 3, 2: 1178. 1960; Mold., Fifth Summ. 1: 191, 428, & 431 (1971) and 2: 663 & 876. 1971; Hegnauer, Chemotax. Pfl. 6 [Chem. Reihe 21]: 675. 1973; Troncoso, Darwiniana 18: 310, 313, & 411. 1974.

My good friend, Otto Zöllner, has found this plant growing at 2000 m. altitude, flowering in September and November, and in fruit in November. Reiche (1910) asserts that it grows "En las cordilleras de las provincias de Coquimbo (Ovalle, Illapel), Aconcagua i Santiago; perece planta escasa". Gay (1849) notes that the "Especie muy afin de la *V[erben]a scoparia* Hook. y que se halla en las cordilleras de Santiago y en el camino de la Guardia". Troncoso (1974) cites *Jiles 1535* from Ovalle, Chile, deposited in the San Isidro herbarium.

A reference to "Poepp. Syn. Pl. Am. Austr. 558" occurs in the literature of this taxon, but as yet has not been located by me -- possibly it is an exsiccatae number.

Material of *D. cinerascens* has been misidentified and distributed in some herbaria as *D. juncea* (Gill. & Hook.) Miers and as *Junellia* sp. On the other hand, the *Poeppig II.85*, distributed as *D. cinerascens* in some herbaria, actually is *D. juncea*.

Additional citations: CHILE: Aconcagua: Zöllner 7938 (Ld). Atacama: *Poeppig 9* [Macbride photos 7855 in part] (W--photo of cotype). Coquimbo: C. Gay 944 [Macbride photos 7855 in part] (W--photo of cotype); Zöllner 5350 (Z). Province undetermined: C. Gay s.n. [Chile] (W--1706333).

DIOSTEA JUNCEA (Gill. & Hook.) Miers

Additional & emended synonymy: *Verbena juncea* α *foliis integerrimis, spicis pubescentibus* Gill. & Hook. in Hook., Bot. Misc. 1: 162. 1829. *Verbena juncea* β *foliis grosse serratis, spicis glabrusculis* Gill. & Hook. in Hook., Bot. Misc. 1: 162. 1829. *Lippia scirpea* R. A. Phil., Anal. Univ. Chile 2: 402. 1862; Linnaea 33: 196. 1864. *Diostea juncea* Miers apud Jacks. in Hook. f. & Jacks., Ind. Kew., imp. 1, 1: 768, in syn. 1893. *Baillonia iuncea* Benth. & Hook. apud M. Kunz, Anatom. Untersuch. Verb. 37. 1911. *Baillonia juncea* Briq. ex Metcalfe & Chalk, Anat. Dicot. 1034, fig. 247 F & H. 1950. *Diostea scirpea* (Phil.) Miers apud Acevedo de Vargas, Bol. Mus. Nac. Hist. Nat. Chile 25: 42--44. 1951. *Lippia baillonia* Darlington & Wylie, Chromos. Atl., imp. 1, 323, in syn. 1955. *Baillonia juncea* (Gill. & Hook.) Briq. ex Encke, Pareys Blumengärtn., ed. 2, 443, in syn. 1960. *Lippea juncea* Gay ex Mold., Résumé Suppl. 3: 33, in syn. 1962. *Diostea juncea* (Schau.) Miers ex Mold., Résumé Suppl. 10: 5, in syn. 1964.

Additional & emended bibliography: Steud., *Nom. Bot. Phan.*, ed. 2, 2: 750. 1841; D. Dietr., *Syn. Pl.* 3: 601. 1843; C. Gay, *Hist. Fis. Chile* 5: 30--31. 1849; Buek, *Gen. Spec. Syn. Candoll.* 3: 266 & 495. 1858; Bocq., *Adansonia*, ser. 1, 3 [Rev. *Verbenac.*] 244. 1863; R. A. Phil., *Anal. Univ. Chil.* 27: 339 (1865) and 35: 193. 1870; Jacks. in Hook. f. & Jacks., *Ind. Kew.*, imp. 1, 1: 264, 768, & 777 (1893), imp. 1, 2: 95 & 96 (1894), and imp. 1, 2: 1179. 1895; Briq., *Ann. Conserv. Jard. Bot. Genève.* 4: 22. 1900; Wilczek & Chod., *Bull. Herb. Boiss.*, ser. 2, 2: 544. 1902; Thiselt.-Dyer, *Ind. Kew. Suppl.* 2: 23, 61, & 106. 1904; Reiche & Phil., *Fl. Chil.* 5: 272, 297--299, & 303. 1910; M. Kunz, *Anatom. Untersuch. Verb.* 37. 1911; C. K. Schneid., *Illustr. Handb. Laubholz.* 2: 590. 1912; Sanzin, *Anal. Soc. Cient. Argent.* 88: 98, 100, 103, 104, 133, & 134, fig. 6. 1919; H. F. Comber, *Gard. Chron.*, ser. 3, 92: 413. 1932; Makins, *Ident. Trees Shrubs* 74 & 259, fig. 62 H. 1936; H. S. Marsh., *Kew Bull. Misc. Inf.* 1936: 94. 1936; Mold., *Geogr. Distrib. Avicenn.* 29 & 39. 1939; Jacks. in Hook. f. & Jacks., *Ind. Kew.* imp. 2, 1: 264, 768, & 777 (1946) and imp. 2, 2: 95, 96, & 1179. 1946; H. N. & A. L. Mold., *Pl. Life* 2: 60. 1948; Metcalfe & Chalk, *Anat. Dicot.* 1032 & 1034, fig. 247 F & H. 1950; Acevedo de Vargas, *Bol. Mus. Nac. Hist. Nat. Chile* 25: 41--44, fig. 2. 1951; Erdtman, *Pollen Morph. Pl. Tax.*, ed. 1, 448. 1952; Darlington & Wylie, *Chromos. Atl.*, imp. 1, 323. 1955; Muñoz Pizarro, *Sin. Fl. Chil.* 199. 1959; Encke, *Pareys Blumengärt.*, ed. 2, 443. 1960; Jacks. in Hook. f. & Jacks., *Ind. Kew.*, imp. 3, 1: 264, 768, & 777 (1960) and imp. 3, 2: 95, 96, & 1179. 1960; Muñoz Pizarro, *Espec. Pl. Des-cr. Philip.* 109--110. 1960; Darlington & Wylie, *Chromos. Atl.*, imp. 2, 323. 1961; Mold., *Phytologia* 9: 114. 1963; Mold., *Résumé Suppl.* 10: 5 (1964) and 11: 5. 1964; Erdtman, *Pollen Morph. Pl. Tax.*, ed. 2, 448. 1966; Mold., *Phytologia* 14: 402. 1967; Mold., *Résumé Suppl.* 15: 21. 1967; Bolkh., Grif, Matvej., & Zakhar., *Chromos. Numb. Flow. Pl.*, imp. 1, 716. 1969; Erdtman, *Pollen Morph. Pl. Tax.*, ed. 2, imp. 2, 448. 1971; Heusser, *Pollen Spores Chile* 62, pl. 59--672. 1971; Mold., *Fifth Summ.* 1: 191, 195, 362, 395, 429, 433, 476, & 477 (1971) and 2: 532, 549, 551, 557, 565, 613, 678, 694, 696, 774, & 876. 1971; Bolkh., Grif, Matvej., & Zakhar., *Chromos. Numb. Flow. Pl.*, imp. 2, 716. 1974; Troncoso, *Darwiniana* 18: 353--355, 409, & 412, fig. 15. 1974; Mold., *Phytologia* 30: 181. 1975; A. R. Mold. in Thrower & Bradbury, *Chile-Calif. Medit. Scrub Atl.* 211. 1977; Markgraf & D'Antoni, *Pollen Fl. Argent.* 20, 32, 98, 114, 122, & 207, pl. 42--358. 1978.

Additional & emended illustrations: Sanzin, *Anal. Soc. Cient. Argent.* 88: 104, fig. 6. 1919; Makins, *Ident. Trees Shrubs* 74, fig. 62 H. 1936; Metcalfe & Chalk, *Anat. Dicot.* 1034, fig. 247 F & H. 1950; Acevedo de Vargas, *Bol. Mus. Nac. Hist. Nat. Chile* 25: 42--44, fig. 2. 1951; Heusser, *Pollen Spores Chile* 62, pl. 59--672. 1971; Troncoso, *Darwiniana* 18: 353, fig. 15. 1974; Markgraf & D'Antoni, *Pollen Fl. Argent.* 98, pl. 42--358. 1978.

[to be continued]